**Unit Planner Technology Differentiation Critical Thinking**

**Teacher: Solek Unit Title: First Degree Equations and Inequalities**

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| **Standards / Benchmarks:** –  N2 Demonstrate that a number can be expressed in many forms  N3 Use number sense to estimate and determine if solutions are reasonable  N 5 Selecting and using appropriate computational methods and tools  N7 Justifying reasonableness of solutions and verifying results  A1 Demonstrating the ability to translate real-world situations into algebraic expressions and equations  A3 Use tables and graphs as tools to interpret algebraic expressions, equations and inequalities  A4 Solving algebraic equations  M1 Select and use appropriate units  M2 demonstrate an intuitive sense of measurement  M3 Estimate, compute and apply physical measurements  M4 Demonstrate the concept of measurement as it applies to real-world experiences  G1 Identifying, describing, comparing, constructing and classifying geometric figures in two and three dimensions  G2 Representing and solving problems using geometric models and properties  G4 Using inductive reasoning to predict, discover and apply geometric properties and relationships  G6 Demonstrating deductive reasoning and mathematical justification  P1 Model the concepts of variables, functions and relations  P2 Translating between tabular, symbolic or graphic representations of functions  D7 Making inferences from data in charts tables and graphs  D8 Using logical thinking i.e. flow charts Venn diagrams and truth tables | | |
| **Standards Analysis:**  **Students should know:**   1. Simplify or evaluate expressions using the order of operations. 2. Define sets of numbers and determine the sets to which a given number belongs. 3. Solve first-degree and absolute value equations and inequalities. 4. Simplify or evaluate expressions using the order of operations. 5. Define sets of numbers and determine the sets to which a given number belongs. 6. Solve first-degree and absolute value equations and inequalities.   **Students should be able to do:**   1. Use order of operations to evaluate expressions 2. Use formulas 3. Classify Real Numbers 4. Use the properties of real numbers to evaluate expressions 5. Translate verbal expressions into algebraic expressions and equations, and vice versa 6. Solve equations using the properties of equality 7. Evaluate expressions involving absolute values 8. Solve absolute value equations 9. Solve inequalities 10. Solve real-world problems involving inequalities 11. Solve compound inequalities 12. Solve absolute value inequalities | **Critical Questions or Statements**:  Essential learning for this Unit   1. Is the Distributive Property also true for division? Why or why not? 2. Determine whether the statement is sometimes, always, or never true. Explain your reasoning. If a and b are real numbers, then = + .  1. What is set builder and interval notation? 2. Does the Reflexive Property hold true for inequalities? | **Relevance:** Connections will be made to these properties using numbers before using the properties with variable to enable all learners to connect the information to previous knowledge |
| **Pre-assessment tools / strategies:**   1. Getting started activity p. 5 in text submit via drop box on edline 2. Daily online self checks @glencoe.com 3. 5 minute checks in resources | **Differentiation strategies:**  Think pair share  Work with a group formed by Kagan strategies  Create your own problem, share with group  Present your reasoning  Choose \_\_\_\_problems from this assignment  Create your own quiz/test on a given objective  Choose to complete the Internet Provider Project in lieu of the Ch 1 Test |

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| **Final Assessment(s) - Body of Evidence:**  Internet Provider Project  Test 1  Equations and Inequalities  Using Interval Notation  Absolute Value Equations and Inequalities | **Instructional Strategies:**   1. Review Syllabus via edline 2. Introduction to Text Book worksheet—Scavenger Hunt 3. Use VVWA ( Verbal and Visual Word Association) vocabulary Development---chart paper vocabulary term, visual representation, definition, personal association or characteristic on chart paper---use groups hang posters—Could use Frayer model also—non examples   examples Power point slides 16 - 33  Examples Power point slides 34 – 64   1. Examples presented in a number of ways—  * Teacher on board * Student on board * Student in one note * Student on poster * Teacher on power point * Teacher on one note |
| **Formative assessments / assignments**   1. Scavenger hunt 2. pp. 15-18 # 19 – 39 odd, 43-61 odd 3. pp. 24-25 # 19-25 odd, 29-69 odd 4. Quiz 5. Practice 1-4 6. Skills 1.5 7. page 51 # 1 – 30 8. Quiz | |